



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
SAM NUNN  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA GEORGIA 30303-8960

June 18, 2012

Liz Agpaoa  
Regional Forester  
1720 Peachtree Road, NW  
Atlanta, GA 30309

**RE: Uwharrie National Forest, Proposed Land and Resource Management  
Resource Plan, Implementation, Montgomery, Randolph and Davidson Counties,  
NC  
CEQ Number: 20120155**

Dear Ms. Agpaoa:

Pursuant to Section 102(2)(C) of the National Environmental Policy Act (NEPA) and Section 309 of the Clean Air Act, the U.S. Environmental Protection Agency (EPA) has reviewed the subject Uwharrie National Forest, Proposed Land and Resource Management Resource Plan, Implementation, Montgomery, Randolph and Davidson Counties, NC . The US Forest Service (USFS) is the lead federal agency for the proposed action.

This Final Environmental Impact Statement (FEIS), prepared by the USDA Forest Service selects Alternative B which is the alternative preferred by the Forest Service and is the foundation for the Proposed Plan available for review concurrently with this document. The preferred alternative would guide all natural resource management activities on the Uwharrie NF for the next 15 years; would address new information and concerns raised since the 1986 Plan was published; and would meet objectives of federal laws, regulation, and policies.

### POTENTIAL EFFECTS ANALYSIS OF ALTERNATIVES

#### BOTANICAL RESOURCES

Alternative B emphasizes restoring the forest to a more natural ecological condition as a primary theme. Through restoration of native ecosystems, native plant communities would be encouraged and restored across the Uwharrie NF. An emphasis on the creation of woodlands and open prairie conditions would benefit sun-loving plant species such as the federally endangered Schweinitz's sunflower. Compared to Alternative A, the greater amount of prescribed fire proposed with Alternative B would provide additional benefits to fire dependent plant species and communities that may have decreased due to historic fire suppression.

## NON-NATIVE INVASIVE PLANT SPECIES

Alternative B includes objectives to eliminate non-native invasive plants on a minimum of 100 acres annually. Alternative A does not specifically address non-native invasive plants and would therefore result in a greater potential for new and existing infestations to adversely affect native plant communities.

## WILDLIFE

The restoration of native longleaf pine and oak-hickory ecosystems that is proposed in Alternative B would positively affect all native wildlife species on the Uwharrie NF. While Alternative A would create somewhat more early successional habitat than Alternative B, it does not restore other wildlife habitats to the extent of Alternative B.

Alternatives B calls for restoration of hard mast producing oak-hickory forests and longleaf pine woodlands associated with a number of sensitive and locally rare species on the national forest. Increased prescribed fire proposed in Alternatives B would help maintain these habitats.

## AQUATIC WILDLIFE

Alternative B proposes several measures to maintain, protect, and conserve aquatic resources. Maintenance of forested habitats and intact riparian areas would retain quality habitat for all aquatic species. Restoration of native forest communities, such as longleaf pine and oak woodlands would provide subtle habitat improvements for aquatic species, but the greatest effect would be from the maintenance of intact, functioning stream and riparian systems. Restoration activities proposed in areas where existing uses or historic mining have degraded stream habitats (largely through sedimentation, but also loss of pool habitat and functioning riparian areas) would, over the life of the plan, improve habitat for crayfish species by returning stream conditions to a more stable, functioning condition.

In addition, Alternative B has a goal for equestrian use to occur only on a designated system of roads, trails, and areas. Designing and implementing a sustainable system could reduce sediment coming from the trails currently in use.

## AIR QUALITY

Alternative B calls for more prescribed burning than Alternative A and also places emphasis on growing season burning. Increased prescribed burning would result in more particulate matter entering the air, and more growing season burning could result in additional ozone formation. Therefore Alternatives B could have more impact on air quality than Alternative A, however, any increase that occurs is not expected to be great enough to violate existing air quality standards.

## WATER RESOURCES

Alternative B proposes a goal to move towards designated systems of roads, trails and areas for equestrians and mountain bikers that would provide some management control over where these users camped. With equestrians and mountain bikers restricted to designated systems there would be fewer impacts from dispersed primitive camping. With Alternative B all trail uses except for hiking would eventually be on designated systems that would strive for and work towards proper design, location, lay out, and construction techniques so the trail systems are sustainable and minimize their impacts to soil, water and aquatic resources. Therefore, with Alternative B the impacts to water resources from roads, in particular unauthorized roads, should be reduced over time.

## CLIMATE CHANGE

Climate change may result in an increase in frequency of intense storms, an increase in wildfire risks, and an increase in outbreaks of insects and diseases. Alternative B establishes a new streamside management area and new guidelines place restrictions on trail construction close to streams, thus lessening the potential for storm events to result in increased sedimentation from trails.

## **EPA COMMENTS**

### GENERAL RECOMMENDATIONS

EPA remains concerned about the long-term sustainability of forest ecosystems of the Southern United States, specifically related to the environmental effects of loss of natural forests and increased rate and geographic extent of timber harvesting in the South.

The Southern Forest Resource Assessment has identified several notable trends in Southern forests, particularly the projected increase in forest management intensity (e.g., increase in pine plantations) and conversion of native forest ecosystems. Potential biological impacts from these actions include loss of habitat, reduction of biodiversity, stream sedimentation, endangered species impacts and wetland impacts.

Better integration of findings across issues/chapters must occur as an important next step in the process of understanding the overall sustainability of Southern forests and forest-dependent resources (e.g., how could the projected increase in pine plantations and management intensity affect overall water quality, quantity, wetlands, or wildlife habitat in the South?).

The integration of findings should lead to the identification of potential smaller areas of concern related to forest sustainability issues. These areas should be identified and commitments made for sustainable management.

## FOREST FRAGMENTATION

Extensive clear cutting has resulted in the fragmentation of many forested ecosystems

into smaller patches that have more forest edge exposed to open, cutover habitats (Harris 1984). The effects of such fragmentation on forest remnants include changes in the microclimate (Chen et al. 1995), in species composition, and in species behavior. Changes in species composition may include loss of some species as a result of unsuitable forest microenvironment, competitive interactions with species at the forest edge, or insufficient total foraging habitat. The change in microclimate at the forest edge may also affect seed dispersal, movement of flying insects, decomposition rates, and size of plant and animal populations.

EPA recommends forest managers examine the effects of fragmentation on a species-by-species basis with emphasis placed on imperiled species and also "keystones" species that play a disproportionately vital role in an ecosystem relative to their abundance and whose removal has large ripple effects on other plants and animals as well as on ecological processes.

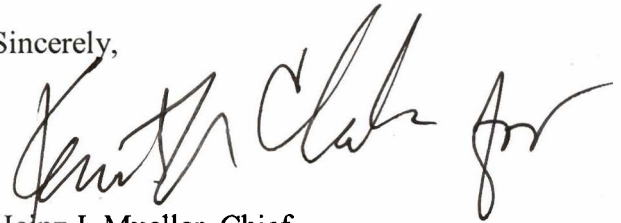
To reduce the impact of timber harvesting on biodiversity, EPA recommends forest management consider the mosaic of forest patches on the landscape and the connectedness of habitat for forest species in planning future cuts.

## **CONCLUSION**

The ROD is very articulate and well documented. EPA has not identified any issues with the selection of Alternative B, the preferred alternative, with consideration of additional Best Practices.

We appreciate the opportunity to review the proposed action. Please contact Ken Clark at (404) 562-8282 if you have any questions or want to discuss our comments.

Sincerely,

A handwritten signature in black ink, appearing to read "Heinz J. Mueller", followed by a stylized flourish or initial.

Heinz J. Mueller, Chief  
NEPA Program Office  
Office of Policy and Management